

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claims 1-8. (Canceled)

Claim 9. (Currently amended) A method for producing carotenoids comprising introducing a DNA molecule containing a nucleotide sequence that encodes a polypeptide comprising [having an IPP isomerase activity] the amino acid sequence set forth in SEQ ID NO: 1 or SEQ ID NO: 2 into a carotenoid-producing microorganism, culturing said transformed microorganism and obtaining carotenoids in the culture broth and cells.

Claims 10-12. (Canceled)

13. (New) An isolated and purified DNA molecule encoding the Phaffia rhodozyma isopentenyl pyrophosphate isomerase set forth in SEQ ID NO: 1.

14. (New) An isolated and purified DNA molecule encoding the Haematococcus pluvialis isopentenyl pyrophosphate isomerase set forth in SEQ ID NO: 2.

15. (New) An isolated and purified polypeptide obtained from Phaffia rhodozyma, said polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 1.

16. (New) An isolated and purified polypeptide obtained from Haematococcus pluvialis, said polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 2.